

2635494\_1.TXT  
SEQUENCE LISTING

<110> Clark, Georgina Jane  
Hart, Derek Nigel Jo

<120> THERAPEUTIC AND DIAGNOSTIC AGENTS

<130> DAVI257.001APC

<140> US 10/536,677  
<141> 2005-05-27

<150> PCT/AU2003/001586  
<151> 2003-11-28

<150> AU 2002952993  
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<170> PatentIn version 3.1

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2

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His Arg Thr Leu Asn Lys Phe Trp Cys Arg Pro Pro Gln Ile Leu Arg			
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Cys Asp Lys Ile Val Glu Thr Lys Gly Ser Ala Gly Lys Arg Asn Gly			
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Val Gln Cys Pro Tyr Glu Lys Glu His Arg Thr Leu Asn Lys Tyr Trp  
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Cys Arg Pro Pro Gln Ile Phe Leu Cys Asp Lys Ile Val Glu Thr Lys  
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Gly Ser Ala Gly Lys Arg Asn Gly Arg Val Ser Ile Arg Asp Ser Pro  
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Ala Asn Leu Ser Phe Thr Val Thr Leu Glu Asn Leu Thr Glu Glu Asp  
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Ala Gly Thr Tyr Trp Cys Gly Val Asp Thr Pro Trp Leu Arg Asp Phe  
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His Asp Pro Val Val Glu Val Glu Val Ser Val Phe Pro Ala Ser Thr  
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Ser Met Thr Pro Ala Ser Ile Thr Ala Ala Lys Thr Ser Thr Ile Thr

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Thr His Ser Ala Ser Ile Gln Glu Glu Thr Glu Glu Val Val Asn Ser  
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Gln Leu Pro Leu Leu Leu Ser Leu Leu Ala Leu Leu Leu Leu Leu Leu  
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Trp Cys Arg Gly Gln Tyr Asp Thr Ser Cys Glu Ser Ile Val Glu Thr  
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Lys Gly Glu Glu Lys Val Glu Arg Asn Gly Arg Val Ser Ile Arg Asp  
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His Pro Glu Ala Leu Ala Phe Thr Val Thr Met Gln Asn Leu Asn Glu  
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Asp Asp Ala Gly Ser Tyr Trp Cys Lys Ile Gln Thr Val Trp Val Leu  
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Asp Ser Trp Ser Arg Asp Pro Ser Asp Leu Val Arg Val Tyr Val Ser  
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Pro Ala Ile Thr Thr Pro Arg Arg Thr Thr His Pro Ala Thr Pro Pro  
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Leu Thr Gln Asn Ser Gly Phe Arg Leu Ser Ser Pro His Phe Leu Leu  
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Val Val Leu Leu Lys Leu Pro Leu Leu Leu Ser Met Leu Gly Ala Val  
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<213> Homo sapiens

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Trp Glu Thr Tyr Leu Lys Trp Arg Cys Gln Gly Ala Asp Trp Asn Tyr  
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Cys Asn Ile Leu Val Lys Thr Asn Gly Ser Glu Gln Glu Val Lys Lys  
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Asn Arg Val Ser Ile Arg Asp Asn Gln Lys Asn His Val Phe Thr Val  
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Thr Met Glu Asn Leu Lys Arg Asp Asp Ala Asp Ser Tyr Trp Cys Gly  
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Thr Glu Arg Pro Gly Ile Asp Leu Gly Val Lys Val Gln Val Thr Ile  
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Asn Pro Ala Gln Cys Leu Ser Leu Leu Pro Thr Asp Asp Arg Val Met  
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Cys Arg Gln Pro Cys Leu Pro Ile Trp His Glu Met Val Glu Thr Gly  
50 55 60

Gly Ser Glu Gly Val Val Arg Ser Asp Gln Val Ile Ile Thr Asp His  
65 70 75 80

Pro Gly Asp Leu Thr Phe Thr Val Thr Leu Glu Asn Leu Thr Ala Asp  
85 90 95

Asp Ala Gly Lys Tyr Arg Cys Gly Ile Ala Thr Ile Leu Gln Glu Asp  
100 105 110

Gly Leu Ser Gly Phe Leu Pro Asp Pro Phe Phe Gln Val Gln Val Leu  
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130 135 140

Pro Thr Arg Pro Ser Gln Cys Gln Gly Ser Leu Pro Ser Ser Thr Cys  
145 150 155 160

Phe Leu Leu Leu Pro Leu Leu Lys Val Pro Leu Leu Leu Ser Ile Leu  
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Trp Cys Arg Gly Val Arg Trp Asp Thr Cys Lys Ile Leu Ile Glu Thr  
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Arg Gly Ser Glu Gln Gly Glu Lys Ser Asp Arg Val Ser Ile Lys Asp  
65 70 75 80

Asn Gln Lys Asp Arg Thr Phe Thr Val Thr Met Glu Gly Leu Arg Arg  
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Asp Asp Ala Asp Val Tyr Trp Cys Gly Ile Glu Arg Arg Gly Pro Asp  
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Leu Gly Thr Gln Val Lys Val Ile Val Asp Pro Glu Gly Ala Ala Ser  
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Thr Thr Ala Ser Ser Pro Thr Asn Ser Asn Met Ala Val Phe Ile Gly  
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Arg Gly Ser Leu Thr Val Gln Cys Val Tyr Arg Ser Gly Trp Glu Thr  
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Asp Leu Met Lys Thr Asp Ala Asp Thr Tyr Trp Cys Gly Ile Glu Lys  
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Thr Gly Asn Asp Leu Gly Val Thr Val Gln Val Thr Ile Asp Pro Ala  
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Pro Val Thr Gln Glu Glu Thr Ser Ser Pro Thr Leu Thr Gly His  
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His Leu Asp Asn Arg His Lys Leu Leu Lys Leu Ser Val Leu Leu Pro  
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Leu Ile Phe Thr Ile Leu Leu Leu Leu Val Ala Ala Ser Leu Leu  
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Leu Ala Gly Thr Ser Pro Gln Lys Ala Thr Thr Lys Leu Ser Ser Ala  
 210 215 220

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Lys Glu Asp Ile Ser Tyr Ala Ser Leu Thr Leu Gly Ala Glu Asp Gln  
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<210> 16

<211> 287

<212> PRT

<213> mouse

<400> 16

Met	Arg	Pro	Leu	Val	Leu	Leu	Trp	Gly	Cys	Leu	Val	Leu	Pro	Gly	Tyr
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Glu	Ala	Leu	Lys	Gly	Pro	Lys	Glu	Ile	Ser	Gly	Phe	Glu	Gly	Asp	Thr
			20				25					30			

val	Ser	Leu	Arg	Cys	Thr	Tyr	Val	Glu	Lys	Met	Lys	Glu	His	Arg	Lys
35						40				45					

Tyr	Trp	Cys	Arg	Gln	Gly	Gly	Ile	Leu	Val	Ser	Arg	Cys	Gly	Asp	Ile
50					55					60					

val	Tyr	Ala	Asn	Gln	Asp	Gln	Glu	Val	Thr	Arg	Gly	Arg	Met	Ser	Ile
65					70				75				80		

Arg	Asp	Ser	Pro	Gln	Glu	Leu	Ser	Met	Thr	Val	Ile	Met	Arg	Asp	Leu
						85			90			95			

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Thr Leu Lys Asp Ser Gly Lys Tyr Trp Cys Gly Ile Asp Arg Leu Gly  
100 105 110

Arg Asp Glu Ser Phe Glu Val Thr Leu Ile Val Phe Pro Gly Ser Ser  
115 120 125

Arg Pro Val Val Trp Leu Pro Leu Thr Thr Pro Gln Asp Ser Arg Ala  
130 135 140

Val Ala Ser Ser Val Ser Lys Pro Ser Val Ser Ile Pro Met Val Arg  
145 150 155 160

Met Met Ala Pro Val Leu Ile Leu Leu Ser Leu Leu Leu Ala Ala Gly  
165 170 175

Leu Ile Ala Phe Gly Ser His Met Leu Arg Trp Arg Lys Lys Ala Trp  
180 185 190

Leu Ala Thr Glu Thr Gln Lys Asn Glu Lys Val Tyr Leu Glu Thr Ser  
195 200 205

Leu Pro Gly Asn Gly Trp Thr Thr Glu Asp Ser Thr Ile Asp Leu Ala  
210 215 220

Val Thr Pro Glu Cys Leu Arg Asn Leu Asn Pro Ser Ala Val Pro Ser  
225 230 235 240

Pro Glu Thr Gln Asn Leu Ser Gln Ser Thr Glu Glu Glu Ala Ala  
245 250 255

Arg Ser Leu Asp Asp Asp Lys Glu Asp Val Met Ala Pro Pro Pro Leu  
260 265 270

Gln Met Ser Ala Glu Glu Leu Ala Phe Ser Glu Phe Ile Ser Val  
275 280 285

<210> 17

<211> 1111

<212> DNA

<213> mouse

<400> 17  
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ttttggcttc caggctgtgt ccctctgcat ggtccccagca ccatgacagg aagtgtgggt 120

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gcttagg	gt	gcagagt	catcagg	catccagaca	ac	ctcac	300
tatgagagcc	tc	accctg	g	gatgcagac	ac	ctacatgt	360
ttt	gatgg	ccttgg	cgataagt	ac	ttcaagatt	gttgtctgt	420
gaggacc	cc	ccctg	gatccaa	act	gatcc	ccagtg	480
cccgc	c	ccctg	gatcca	ac	aggacc	gttgtcc	540
ctccc	agc	gc	tgatgtct	gt	tagctc	ctgtt	600
ctggc	c	ctg	gttcc	ga	agcgg	gtca	660
cagaac	ct	ca	gatgttcc	ga	gccc	aa	720
acgtgg	tc	tc	tgatgttcc	ga	gttcc	ataggc	780
acattgg	ca	tc	tgatgttcc	ga	ataggc	atcc	840
caggatt	tc	tc	tgatgttcc	ga	ataggc	atcc	900
agtgagat	cc	cc	tgatgttcc	ga	ataggc	atcc	960
tgatcc	tc	tc	tgatgttcc	ga	ataggc	atcc	1020
tcatgagc	c	c	tgatgttcc	ga	ataggc	atcc	1080
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<210> 18

<211> 314

<212> PRT

<213> mouse

<400> 18

Met Thr Gln Leu Ala Ser Ala Val Trp Leu Pro Thr Leu Leu Leu  
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Leu Leu Leu Phe Trp Leu Pro Gly Cys Val Pro Leu His Gly Pro Ser  
 20 25 30

Thr Met Thr Gly Ser Val Gly Gln Ser Leu Ser Val Ser Cys Gln Tyr  
 35 40 45

Glu Glu Lys Phe Lys Thr Lys Asp Lys Tyr Trp Cys Arg Gly Ser Leu  
 50 55 60

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Lys Val Leu Cys Lys Asp Ile Val Lys Thr Ser Ser Ser Glu Glu Ala  
65 70 75 80

Arg Ser Gly Arg Val Thr Ile Arg Asp His Pro Asp Asn Leu Thr Phe  
85 90 95

Thr Val Thr Tyr Glu Ser Leu Thr Leu Glu Asp Ala Asp Thr Tyr Met  
100 105 110

Cys Ala Val Asp Ile Ser Leu Phe Asp Gly Ser Leu Gly Phe Asp Lys  
115 120 125

Tyr Phe Lys Ile Glu Leu Ser Val Val Pro Ser Glu Asp Pro Gly Pro  
130 135 140

Thr Leu Glu Thr Pro Val Val Ser Thr Ser Leu Pro Thr Lys Gly Pro  
145 150 155 160

Ala Leu Gly Ser Asn Thr Glu Asp Arg Arg Glu His Asp Tyr Ser Gln  
165 170 175

Gly Leu Arg Leu Pro Ala Leu Leu Ser Val Leu Ala Leu Leu Phe  
180 185 190

Leu Leu Val Gly Thr Ser Leu Leu Ala Trp Arg Met Phe Gln Lys Arg  
195 200 205

Leu Val Lys Ala Asp Arg His Pro Glu Leu Ser Gln Asn Leu Arg Gln  
210 215 220

Ala Ser Glu Gln Asn Glu Cys Gln Tyr Val Asn Leu Gln Leu His Thr  
225 230 235 240

Trp Ser Leu Arg Glu Glu Pro Val Leu Pro Ser Gln Val Glu Val Val  
245 250 255

Glu Tyr Ser Thr Leu Ala Leu Pro Gln Glu Glu Leu His Tyr Ser Ser  
260 265 270

Val Ala Phe Asn Ser Gln Arg Gln Asp Ser His Ala Asn Gly Asp Ser  
275 280 285

Leu His Gln Pro Gln Asp Gln Lys Ala Glu Tyr Ser Glu Ile Gln Lys  
290 295 300

Pro Arg Lys Gly Leu Ser Asp Leu Tyr Leu  
305 310

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<210> 19

<211> 711

<212> DNA

<213> mouse

<400> 19  
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aatcagaaaa atcactcatt ccaggttacc atggagatgc tcaggcaaaa tgacacggac 180  
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gcagcagaga tgtggtaaa gataccatgt cgacttctaa tcaacttccc tggcccactg 420  
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<210> 20

<211> 236

<212> PRT

<213> mouse

<400> 20

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20 25 30

Thr Val Gln Cys Arg Tyr Ser Ser Arg Trp Gln Thr Asn Lys Lys Trp  
35 40 45

Trp Cys Arg Gly Ala Ser Trp Ser Thr Cys Arg Val Leu Ile Arg Ser  
50 55 60

2635494\_1.TXT

Thr Gly Ser Glu Lys Glu Thr Lys Ser Gly Arg Leu Ser Ile Arg Asp  
65 70 75 80

Asn Gln Lys Asn His Ser Phe Gln Val Thr Met Glu Met Leu Arg Gln  
85 90 95

Asn Asp Thr Asp Thr Tyr Trp Cys Gly Ile Glu Lys Phe Gly Thr Asp  
100 105 110

Arg Gly Thr Arg Val Lys Val Asn Val Tyr Phe Gly His Met Gln Thr  
115 120 125

Phe Phe Ser Ser Ala Ala Thr Leu Thr Pro Glu Arg Ala Ala Glu Met  
130 135 140

Trp Val Lys Ile Pro Cys Arg Leu Leu Ile Asn Phe Pro Gly Pro Leu  
145 150 155 160

Trp Thr Ala Val Gln Thr Trp Cys Leu Leu Thr Cys Arg Arg Gly Leu  
165 170 175

Glu Ala Ser Leu Val Gly Ala Phe Val Gly Gly Leu Met Gln Val Pro  
180 185 190

Ser Cys Ser Leu Ala Val Ala Ile Phe Thr Phe Val Leu Thr Leu Thr  
195 200 205

Pro Pro Ser Ser Gln Glu Ala His Ser Thr Pro Ser Ser His Ser Ala  
210 215 220

Pro Val Ala Ser Lys Glu Glu Met Asn Arg Leu Phe  
225 230 235

<210> 21

<211> 819

<212> DNA

<213> mouse

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ttttctggag acagtaccca gtgaggcagg aggatgaggc tatgtgcagg tctgctcctt 180  
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2635494\_1.TXT

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tccctgctca	gcagcatcca	gttccaggc	ctggtcttcc	tgaagctgcc	tctgtttctg	660
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gagtgaccca	tccaagaact	atgaagtgaa	gcatcccagg	aatgccctgg	gaggaactca	780
gtcctgcatg	cagactggac	ttcattgttc	tgtgtctca			819

<210> 22

<211> 181

<212> PRT

<213> mouse

<400> 22

Met	Arg	Leu	Cys	Ala	Gly	Leu	Leu	Leu	Leu	Cys	Phe	Gln	Gly	Cys	Leu
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Ser	Leu	Thr	Gly	Pro	Gly	Ser	Val	Ser	Gly	Tyr	Val	Gly	Gly	Ser	Leu
				20			25					30			

Arg	Val	Gln	Cys	Gln	Tyr	Ser	Pro	Ser	Tyr	Lys	Gly	Tyr	Met	Lys	Tyr
				35			40			45					

Trp	Cys	Arg	Gly	Pro	His	Asp	Thr	Thr	Cys	Lys	Thr	Ile	Val	Glu	Thr
					50			55			60				

Asp	Gly	Ser	Glu	Lys	Glu	Lys	Arg	Ser	Gly	Pro	Val	Ser	Ile	Arg	Asp
				65		70		75					80		

His	Ala	Ala	Asn	Ser	Thr	Ile	Thr	Val	Ile	Met	Glu	Asp	Leu	Ser	Glu
					85			90					95		

Asp	Asp	Ala	Gly	Ser	Tyr	Trp	Cys	Lys	Ile	Gln	Thr	Ser	Phe	Ile	Trp
					100			105				110			

Asp	Ser	Trp	Ser	Arg	Asp	Pro	Ser	Val	Ser	Val	Arg	Val	Asn	Val	Phe
				115			120			125					

2635494\_1.TXT

Pro Val Asn Ser Gly Gln Asn Leu Arg Ile Ser Thr Asn Val Met Phe  
 130 135 140

Ile Phe Gln Leu Trp Ser Leu Leu Ser Ser Ile Gln Phe Gln Val Leu  
 145 150 155 160

Val Phe Leu Lys Leu Pro Leu Phe Leu Ser Met Leu Cys Ala Ile Phe  
 165 170 175

Trp Val Asn Arg Leu  
 180

<210> 23

<211> 2487

<212> DNA

<213> mouse

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aggtccagag gaggtgagcg gtcaggagca gggctccttg acagtgcagt gcagatattc	240	
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tattcttggta gaaaccgata aatcagagca gctggtgaag aagaaccgtg tgtccatcag	360	
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gaacattgac caagccccaa aaagttcaat gatgaccacc acagccacag ttctgaaatc	540	
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tagagagaaa cagttcccaa gaaatggaaa ataatctctg tctctctgtt gtctctgtct	840	
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cagggacagc tgagttctgg aaccattca tgtgcccctc tctcaggaca tcctgcaata	1320
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<210> 24

<211> 221

<212> PRT

<213> mouse

<400> 24

Met Trp Gln Phe Ser Ala Leu Leu Leu Phe Phe Leu Pro Gly Cys Cys  
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Thr Ala Gln Asp Ser Val Thr Gly Pro Glu Glu Val Ser Gly Gln Glu  
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Gln Gly Ser Leu Thr Val Gln Cys Arg Tyr Ser Ser Tyr Trp Lys Gly  
35 40 45

Tyr Lys Lys Tyr Trp Cys Arg Gly Val Pro Gln Arg Ser Cys Asp Ile  
50 55 60

Leu Val Glu Thr Asp Lys Ser Glu Gln Leu Val Lys Lys Asn Arg Val  
65 70 75 80

Ser Ile Arg Asp Asn Gln Arg Asp Phe Ile Phe Thr Val Thr Met Glu  
85 90 95

Asp Leu Arg Met Ser Asp Ala Gly Ile Tyr Trp Cys Gly Ile Thr Lys  
100 105 110

Gly Gly Pro Asp Pro Met Phe Lys Val Asn Val Asn Ile Asp Gln Ala  
115 120 125

Pro Lys Ser Ser Met Met Thr Thr Thr Ala Thr Val Leu Lys Ser Ile  
130 135 140

Gln Pro Ser Ala Glu Asn Thr Gly Lys Glu Gln Val Thr Gln Ser Lys  
145 150 155 160

Glu Val Thr Gln Ser Arg Pro His Thr Arg Ser Leu Leu Ser Ser Ile  
165 170 175

Tyr Phe Leu Leu Met Val Phe Val Glu Leu Pro Leu Leu Leu Ser Met  
180 185 190

Leu Ser Ala Val Leu Trp Val Thr Arg Pro Gln Arg Cys Phe Gly Arg  
195 200 205

Gly Glu Asn Asp Leu Val Lys Thr His Ser Pro Val Ala  
210 215 220

<210> 25

<211> 1307

<212> DNA

<213> mouse

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gaaccgtgtg tccatcaggg acaaccagag agacttcatc ttcacagtga ccatggagga	420
tctgaggatg agcgatgctg gcatttactg gtgtgaaatt acgaaagtgc caaccatgcc	480
ccccatcacc tccaccacca ccatcttac agtacaacc acagtaaaag agaccagcat	540
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acagaagaaa gacctgtccc tgaagcagcc cagaacctcc cctggctcct cttggaaaaa	780
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ggagcctact tatggcaata ctggctgccc catcacccat gttcccagga caggccttga	960
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tccccactta tagccaatgt accttggaaag gtaccaggca ggctgcttca gggatgctgt	1260
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<210> 26

<211> 296

<212> PRT

<213> mouse

<400> 26

Met His Leu Ser Leu Leu Val Pro Phe Leu Phe Trp Ile Thr Gly Cys	
1 5 10 15	

Cys Thr Ala Glu Asp Pro Val Thr Gly Pro Glu Glu Val Ser Gly Gln	
Page 25	

20

25

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Glu Gln Gly Ser Leu Thr Val Gln Cys Arg Tyr Thr Ser Gly Trp Lys  
35 40 45

Asp Tyr Lys Lys Tyr Trp Cys Gln Gly Val Pro Gln Arg Ser Cys Lys  
50 55 60

Thr Leu Val Glu Thr Asp Ala Ser Glu Gln Leu Val Lys Lys Asn Arg  
65 70 75 80

Val Ser Ile Arg Asp Asn Gln Arg Asp Phe Ile Phe Thr Val Thr Met  
85 90 95

Glu Asp Leu Arg Met Ser Asp Ala Gly Ile Tyr Trp Cys Gly Ile Thr  
100 105 110

Lys Val Pro Thr Met Pro Pro Ile Thr Ser Thr Thr Ile Phe Thr  
115 120 125

Val Thr Thr Thr Val Lys Glu Thr Ser Met Phe Pro Thr Leu Thr Ser  
130 135 140

Tyr Tyr Ser Asp Asn Gly His Gly Gly Asp Ser Gly Gly Glu  
145 150 155 160

Asp Gly Val Gly Asp Gly Phe Leu Asp Leu Ser Val Leu Leu Pro Val  
165 170 175

Ile Ser Ala Val Leu Leu Leu Leu Leu Val Ala Ser Leu Phe Ala  
180 185 190

Trp Arg Met Val Arg Arg Gln Lys Lys Asp Leu Ser Leu Lys Gln Pro  
195 200 205

Arg Thr Ser Pro Gly Ser Ser Trp Lys Lys Gly Ser Ser Met Ser Ser  
210 215 220

Ser Gly Lys Asp His Gln Glu Glu Val Glu Tyr Val Thr Met Ala Pro  
225 230 235 240

Phe Pro Arg Glu Glu Val Ser Tyr Ala Ala Leu Thr Leu Ala Gly Leu  
245 250 255

Gly Gln Glu Pro Thr Tyr Gly Asn Thr Gly Cys Pro Ile Thr His Val  
260 265 270

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Arg Pro Leu Pro Ala Ala Met Pro  
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Gly Gln Glu Gln Gly Ser Leu Thr Val Gln Cys Arg Tyr Asp Ser Gly  
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Trp Lys Asp Tyr Lys Lys Tyr Trp Cys Arg Gly Ala Tyr Trp Lys Ser  
35 40 45

Cys Glu Ile Leu Val Glu Thr Asp Ala Ser Glu Gln Leu Val Lys Glu  
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Asn Arg Val Ser Ile Arg Asp Asp Gln Thr Asp Phe Ile Phe Thr Val  
65 70 75 80

Thr Met Glu Asp Leu Arg Met Ser Asp Ala Asp Ile Tyr Trp Cys Gly  
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Ile Thr Lys Ala Gly Thr Asp Pro Met Phe Lys Val Asn Val Asn Ile  
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Asp Pro

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20 25 30

Arg Gly Ser Leu Thr Val Gln Cys Val Tyr Arg Ser Gly Trp Glu Thr  
35 40 45

Tyr Leu Lys Trp Trp Cys Arg Gly Ala Ile Trp Arg Asp Cys Lys Ile  
50 55 60

Leu Val Lys Thr Ser Gly Ser Glu Gln Glu Val Lys Arg Asp Arg Val  
65 70 75 80

Ser Ile Lys Asp Asn Gln Lys Asn Arg Thr Phe Thr Val Thr Met Glu  
85 90 95

Asp Leu Met Lys Thr Asp Ala Asp Thr Tyr Trp Cys Gly Ile Glu Lys  
100 105 110

Thr Gly Asn Asp Leu Gly Val Thr Val Gln Val Thr Ile Asp Pro Ala  
115 120 125

Pro Val Thr Gln Glu Glu Thr Ser Ser Ser Pro Thr Leu Thr Gly His  
130 135 140

His Leu Asp Asn Arg His Lys Leu Leu Lys Leu Ser Val Leu Leu Pro  
145 150 155 160

Leu Ile Phe Thr Ile Leu Leu Leu Leu Val Ala Ala Ser Leu Leu  
165 170 175

Ala Trp Arg Met Met Lys Tyr Gln Gln Lys Gly Glu Arg Thr Trp Val  
180 185 190

Leu Gln Pro Leu Glu Gly Asp Leu Cys Tyr Ala Asp Leu Thr Leu Gln  
195 200 205

Leu Ala Gly Thr Ser Pro Gln Lys Ala Thr Thr Lys Leu Ser Ser Ala  
210 215 220

Gln Val Asp Gln Val Glu Val Glu Tyr Val Ala Ala Gly Met Ser Pro  
225 230 235 240

Glu Gln Thr Met Ala Ser Leu Pro Lys Glu Asp Ile Ser Tyr Ala Ser  
245 250 255

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Leu Thr Leu Gly Ala Glu Asp Gln Glu Pro Thr Tyr Cys Asn Met Gly  
260 265 270

His Leu Ser Ser His Leu Pro Gly Arg Gly Pro Glu Glu Pro Thr Glu  
275 280 285

Tyr Ser Thr Ile Ser Arg Pro  
290 295